

**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/057,199 04/08/98 PELKA

D TIRTECH015A

020995 MM91/0323
KNOBBE MARTENS OLSON & BEAR LLP
620 NEWPORT CENTER DRIVE
SIXTEENTH FLOOR
NEWPORT BEACH CA 92660

EXAMINER

SAWHNEY, H

ART UNIT

PAPER NUMBER

2875

DATE MAILED:

03/23/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

020995 MM91/0323
KNOBBE MARTENS OLSON & BEAR LLP
620 NEWPORT CENTER DRIVE
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NEWPORT BEACH CA 92660

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
09/057,199	04/08/98	029	SAWHNEY, H	2875 03/23/00
First Named Applicant	PELKA,	35 USC 154(b) term ext. = 0 Days.		

TITLE OF INVENTION ILLUMINATION DEVICE FOR NONEMISSIVE DISPLAYS

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	TIRTECH015A	362-026.000	K01 UTILITY	NO	\$1210.00	06/23/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No.

09/057,199

Examiner

Hargobind S Sawhney

Applicant(s)

PELKA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

1. ☒ This communication is responsive to 4/8/1998.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☒ The drawings filed on 08 April 1998 are acceptable.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - a) ☐ All b) ☐ Some* c) ☐ None of the CERTIFIED copies of the priority documents have been
 1. ☐ received.
 2. ☐ received in Application No. (Series Code / Serial Number). _____.
 3. ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.
5. ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

A SHORTENED STATUTORY PERIOD FOR REPLY to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office Action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be available under the provisions of 37 CFR 1.136(a).

6. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
7. ☐ Applicant MUST submit NEW FORMAL DRAWINGS
 - (a) ☐ because the originally filed drawings were declared by applicant to be informal.
 - (b) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review(PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (c) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the examiner.
 - (d) ☐ including changes required by the attached Examiner's Amendment / Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

8. ☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any reply to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE / SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 5 <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. <u>5&8</u> . | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-29 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The illumination device disclosed by the applicant generally comprises:

- a housing supporting a display;
- a light guide;
- a wave guide;
- a cover;
- a plurality of light sources such as LEDs;
- one or a plurality of electrical- conductive strips each carrying the light sources (LEDs);
- the plurality of light sources positioned adjacent the peripheral edges of a light guide;
- a series of diffusive reflective optical cavities each carrying a light source; and

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- an angular spectrum restrictor.

The above indicated hardware elements of the illumination device disclosed by the applicant are conventional, and are well known in the art. However, the prior art of record fails to show or suggest the applicant's invention as claimed. Specifically, the prior art of record does not disclose proper motivation for combining the following features:

- a series of diffusive surfaces adjacent the peripheral portion of the wave guide and between pairs of the light sources as recited in claim 1;
- the series of diffusive surfaces introducing light in the regions of the waveguide between pairs of light sources as recited in claim 1;
- a series of diffusive reflective optical cavities formed with diffusive reflective surfaces as recited in claims 12 and 17;
- a plurality of guide members- also specified as posts- formed by diffusive reflective surfaces as recited in claim 21; and
- the plurality guide members being positioned along the periphery of the waveguide as recited in claim 21.

Claims 2-11 are allowed because of their dependency on the allowed independent claim 1.

Claims 13-16 are allowed because of their dependency on the above-indicated allowed independent claim 12.

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Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rycroft et al. (U.S. Patent No. 5,365,411) discloses a LED illuminated exit sign comprising some of the claimed features including a plurality of LEDs on an electrical- conductive strips, housing and light guide. However, Rycroft does not teach the use of a plurality of guide members- also specified as posts- formed by diffusive reflective surfaces as claimed by the applicant.

Young (U.S. Patent No. 3,497,686) discloses an illuminated display apparatus comprising some of the claimed features including a series of reflective surfaces formed by a v-groove in the light guide. However, Young's teaching of the reflective surface arrangement does not meet the limitations claimed by the applicant.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S, Sawhney whose telephone number is 703-306-5909. The examiner can normally be reached on 7:30 - 5:15.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone

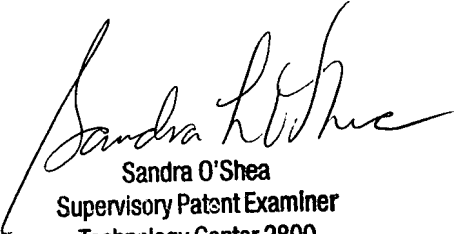
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numbers for the organization where this application or proceeding is assigned are 703-308-8303 for regular communications and 703-308-8303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2956.

HSS

03/20/2000



Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800

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Claims 18-20 are allowed because of their dependency on the allowed independent claim 17.

Claims 22-25 are allowed because of their dependency on the above-indicated allowed independent claim 21.

The method claim 26 is allowed because the apparatus claims 1-25 do not meet all the limitations of this method claim.

Claims 27-29 are allowed because of their dependency on the above-indicated allowed independent method claim 26.

Pulles (U.S. Patent No. 3,892,959) discloses an edge lighted panel arrangement comprising some of the claimed features including:

- a housing;
- a wave guide;
- a cover;
- a plurality of light sources such as LEDs on an electrical- conductive strip, the LED strip adjacent the peripheral edges of a light guide; and
- a series of diffusive reflective optical cavities each carrying a light source

However, Pulles does not teach the use of a plurality of guide members- also specified as posts- formed by diffusive reflective surfaces as claimed by the applicant.